

* * * * * STN Columbus * * * * *

=> file req

 \Rightarrow

10 11 12 13 14 15 16 17 18 19 20

1 2 3 4 5 6 7 8 9

7-10 9-11 11-12 11-15 12-13 13-14 13-16 14-17 14-18 16-19 16-20

1-2 1-6 1-7 2-3 2-9 3-4 4-5 5-6 7-8 8-9

1-7 7-8 7-10 11-12 11-15 12-13 13-14 13-16

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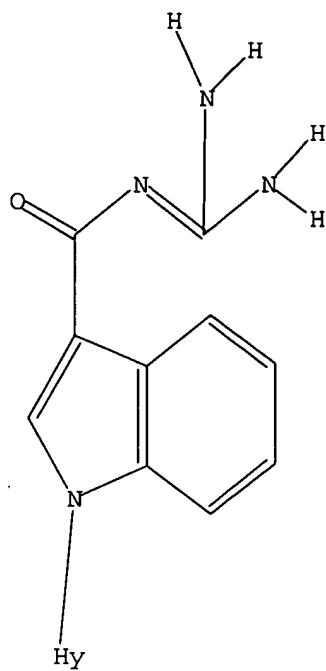
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11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS 18:CLASS
19:CLASS 20:CLASS
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=> d 11

L1 STR

10/749,630



Structure attributes must be viewed using STN Express query preparation.

=> s l1 full

L3 72 SEA SSS FUL L1

=> file ca

=> s l3

L4 2 L3

=> d ibib abs fhitstr 1-2

10/749,630

L4 ANSWER 1 OF 2 CA COPYRIGHT 2005 ACS ON STN

ACCESSION NUMBER:

TITLE:

INVENTOR(S):

PATENT ASSIGNEE(S):

SOURCE:

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NUM. COUNT:

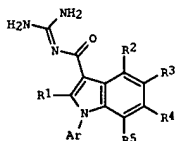
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007480	A1	20040122	WO 2003-EP7024	20030702
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, NZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
FR 2842526	A1	20040123	FR 2002-8949	20020716
CA 2492427	AA	20040122	CA 2003-2492427	20030702
EP 1523481	A1	20050420	EP 2003-763686	20030702
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005026989	A1	20050203	US 2003-749630	20031231
PRIORITY APPL. INFO.: FR 2002-8949 A 20020716 WO 2003-EP7024 W 20030702				

OTHER SOURCE(S):

GI

MARPAT 140:128292



AB The title compds. [I: R1 = H, alkyl; R2 = H, alkyl, halo, etc.; R3, R4 =

L4 ANSWER 2 OF 2 CA COPYRIGHT 2005 ACS ON STN

ACCESSION NUMBER:

TITLE:

INVENTOR(S):

PATENT ASSIGNEE(S):

SOURCE:

DOCUMENT TYPE:

LANGUAGE:

FAMILY ACC. NUM. COUNT:

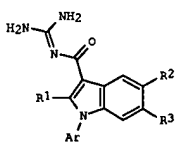
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WO 2004007479	A1	20040122	WO 2003-EP7023	20030702
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FR 2842525	B1	20050513		
CA 2492421	AA	20040122	CA 2003-2492421	20030702
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US 2004214820	A1	20041028	US 2003-749631	20031231
PRIORITY APPL. INFO.: FR 2002-8948 A 20020716 WO 2003-EP7023 W 20030702				

OTHER SOURCE(S):

GI

MARPAT 140:128291



AB The title compds. [I: R1 = H, alkyl; R2, R3 = H, alkyl, halo, alkoxy, OH; Ar = (un)substituted 9-10 membered bicyclic heteroaryl having 1-3 N atoms] which are suitable for example as antiarrhythmic medicaments with a cardioprotective component for infarction prophylaxis and infarction treatment and for the treatment of angina pectoris, were prepared and

L4 ANSWER 1 OF 2 CA COPYRIGHT 2005 ACS ON STN (Continued)

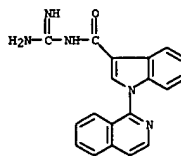
H, alkyl, halo, alkoxy, OH; R5 = H, halo; Ar = 9-10 membered bicyclic heteroaryl having 1-3 N atoms], which are suitable for example as antiarrhythmic medicaments with cardioprotective component for infarction prophylaxis and infarction treatment and for the treatment of angina pectoris, were prepd. and formulated. They also inhibit in a preventive manner the pathophysiol. processes assoc. with the development of ischemia-induced damage, in particular in the triggering of ischemia-induced cardiac arrhythmias and of heart failure. E.g., a 4-step synthesis of 1.HCl [R1-R5 = H; Ar = isoquinolin-1-yl] which showed IC50 of 0.014 μM against NHE1 subtype, was given.

IT

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 3-guanidinocarbonyl-1-heteroaryl-indoles for treating or preventing diseases which are related to sodium-proton exchanger (NHE))

RN 649550-23-2 CA

CN 1H-Indole-3-carboxamide, N-(aminoinimomethyl)-1-(1-isoquinolinyl)-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CA COPYRIGHT 2005 ACS ON STN (Continued)

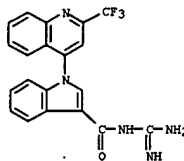
formulated. They also inhibit in a preventive manner the pathophysiol. processes assoc. with the development of ischemia-induced damage, in particular in the triggering of ischemia-induced cardiac arrhythmias and of heart failure. E.g., a 4-step synthesis of 1.HCl [R1-R3 = H; Ar = 2-trifluoromethylquinolin-4-yl] which showed IC50 of 2.36 μM for the NHE-1 subtype, was given.

IT

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 3-guanidinocarbonyl-1-heteroaryl-indoles for treating or preventing diseases which are related to sodium-proton exchanger (NHE))

RN 649538-65-8 CA

CN 1H-Indole-3-carboxamide, N-(aminoinimomethyl)-1-[2-(trifluoromethyl)-4-quinolinyl]-, monohydrochloride (9CI) (CA INDEX NAME)



● HCl

REFERENCE COUNT:

3

THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> file marpat

=> s l1 full

L5 4 SEA SSS FUL L1

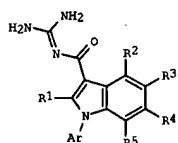
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10/749,630

L5 ANSWER 1 OF 4 MARPAT COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 140:128292 MARPAT
 TITLE: Preparation of 3-guanidinocarbonyl-1-heteroaryl-
 indoles for treating or preventing diseases which are
 related to NHE (sodium-proton exchanger)
 INVENTOR(S): Kleemann, Heinz-Werner; Carry, Jean-Christophe;
 Desmazeau, Pascal; Mignani, Serge; Bouquerel, Jean;
 Genevois-Borella, Arielle; Ronan, Baptiste
 PATENT ASSIGNEE(S): Aventis Pharma Deutschland GmbH, Germany
 SOURCE: PCT Int. Appl., 69 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007480	A1	20040122	WO 2003-EP7024	20030702
W: AS, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG FR 2842525 A1 20040123 FR 2002-8948 20020716 CA 2492427 AA 20040122 CA 2003-2492427 20030702 EP 1523481 A1 20050420 EP 2003-763686 20030702 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK US 2005026989 A1 20050203 US 2003-749630 20031231 FR 2002-8948 20020716 WO 2003-EP7024 20030702				

PRIORITY APPLN. INFO.:
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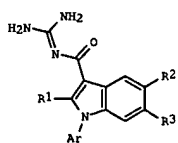


AB The title compds. [I: R1 = H, alkyl; R2 = H, alkyl, halo, etc.; R3, R4 = H, alkyl, halo, alkoxy, OH; R5 = H, halo; Ar = 9-10 membered bicyclic

L5 ANSWER 2 OF 4 MARPAT COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 140:128291 MARPAT
 TITLE: Preparation of 3-guanidinocarbonyl-1-heteroaryl-
 indoles for treating or preventing diseases which are
 related to sodium-proton exchanger (NHE)
 INVENTOR(S): Kleemann, Heinz-Werner; Carry, Jean-Christophe;
 Desmazeau, Pascal; Mignani, Serge; Bouquerel, Jean;
 Genevois-Borella, Arielle; Ronan, Baptiste
 PATENT ASSIGNEE(S): Aventis Pharma Deutschland GmbH, Germany
 SOURCE: PCT Int. Appl., 57 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004007479	A1	20040122	WO 2003-EP7023	20030702
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG FR 2842525 A1 20040123 FR 2002-8948 20020716 FR 2842525 B1 20050513 CA 2492421 AA 20040122 CA 2003-2492421 20030702 BR 2003012701 A 20050426 BR 2003-12701 20030702 EP 1530566 A1 20050518 EP 2003-763685 20030702 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK US 2004214820 A1 20041028 US 2003-749631 20031231 FR 2002-8948 20020716 WO 2003-EP7023 20030702				

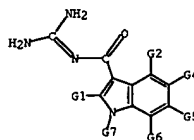
PRIORITY APPLN. INFO.:
 GI



AB The title compds. [I: R1 = H, alkyl; R2, R3 = H, alkyl, halo, alkoxy, OH; Ar = (un)substituted 9-10 membered bicyclic heteroaryl having 1-3 N atoms] which are suitable for example as antiarrhythmic medicaments with a cardioprotective component for infarction prophylaxis and infarction treatment and for the treatment of angina pectoris, were prepared and formulated. They also inhibit in a preventive manner the pathophysiol.

L5 ANSWER 1 OF 4 MARPAT COPYRIGHT 2005 ACS on STN (Continued)
 heteroaryl having 1-3 N atoms], which are suitable for example as antiarrhythmic medicaments with cardioprotective component for infarction prophylaxis and infarction treatment and for the treatment of angina pectoris, were prep'd. and formulated. They also inhibit in a preventive manner the pathophysiol. processes assoc'd. with the development of ischemia-induced damage, in particular in the triggering of ischemia-induced cardiac arrhythmias and of heart failure. E.g., a 4-step synthesis of I.HCl [R1-R5 = H; Ar = isoquinolin-1-yl] which showed IC50 of 0.014 µM against NHE1 subtype, was given.

MSTR 1



G7 = quinolinyl

MPL: claim 1

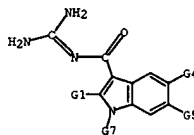
NTE: and pharmaceutically acceptable salts

STE: and racemic mixtures, enantiomers, diastereomers, tautomers and mixtures

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 4 MARPAT COPYRIGHT 2005 ACS on STN (Continued)
 processes assoc'd. with the development of ischemia-induced damage, in particular in the triggering of ischemia-induced cardiac arrhythmias and of heart failure. E.g., a 4-step synthesis of I.HCl [R1-R3 = H; Ar = 2-trifluoromethylquinolin-4-yl] which showed IC50 of 2.36 µM for the NHE-1 subtype, was given.

MSTR 1



MPL: claim 1

NTE: and pharmaceutically acceptable salts

STE: and racemic mixtures, enantiomers, diastereomers, tautomers and mixtures

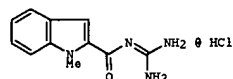
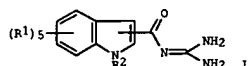
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

10/749,630

L5 ANSWER 3 OF 4 MARPAT COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 125:58312 MARPAT
 TITLE: Indoloylguanidine derivatives useful as inhibitors of Na⁺/H⁺ exchanger activity.
 INVENTOR(S): Kitano, Masahumi; Nakano, Kazuhiro; Yagi, Hideki; Ohasbi, Naohito; Kojima, Atsuyuki; Noguchi, Tsuyosbi; Miyagishi, Akira
 PATENT ASSIGNEE(S): Sumitomo Pharmaceuticals Company, Limited, Japan
 SOURCE: Eur. Pat. Appl., 99 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 708091	A1	19960424	EP 1995-307409	19951018
EP 708091	A3	19960717		
JP 08208602	A2	19960813	JP 1995-286772	19951006
CA 2160600	AA	19960419	CA 1995-2160600	19951016
CN 1136038	A	19961120	CN 1995-116169	19951017
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PRIORITY APPLN. INFO.:
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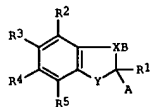


AB Indoloylguanidine derive. I [R1 = H, (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, halo, NO2, acyl, CO2H, alkoxycarbonyl, aromatic group, (un)substituted OH, NH2, SO2NH2, etc.; R2 = H, (un)substituted alkyl, cycloalkyl, OH, alkoxy, etc.] and their pharmaceutically acceptable acid addition salts inhibit Na⁺/H⁺ exchanger activity, and are consequently useful in the treatment or prevention of diseases caused by increased Na⁺/H⁺ exchanger activity. For example, condensation of Me 1-methyl-2-indolecarboxylate in the presence of NaOMe at ≤ 130° gave, after chromatog. and salification, 30.8% title compound II. In an assay for inhibition of ischemia-and-reperfusion-induced cardiac arrhythmia in rats, II at 0.3 mg/kg reduced mortality from 76% (control) to 0%, whereas EIPA [5-(N-ethyl-N-isopropyl)amiloride] reduced mortality to only 44% at the same dose.

L5 ANSWER 4 OF 4 MARPAT COPYRIGHT 2005 ACS on STN
 ACCESSION NUMBER: 123:256510 MARPAT
 TITLE: Preparation of indolylcarbonylguanidines, benzofurylcarbonylguanidines, benzothienylcarbonylguanidines, benzimidazolylcarbonylguanidines, and related compounds as drugs and diagnostic agents.
 INVENTOR(S): Lang, Hans Jochen; Weichert, Andreas; Schwark, Jan Robert; Scholz, Wolfgang; Albus, Udo; Crause, Peter
 PATENT ASSIGNEE(S): Hoechst A.-G., Germany
 SOURCE: Eur. Pat. Appl., 36 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

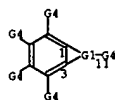
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 639573	A1	19950222	EP 1994-111765	19940728
DE 4326005	A1	19950209	DE 1993-4326005	19930803
DE 4414316	A1	19951026	DE 1994-4414316	19940425
			DE 1993-4326005	19930803
			DE 1994-4414316	19940425

PRIORITY APPLN. INFO.:
 GI



AB Title compds. [I: X = N, CR6; Y = O, S, NR7; A, B = H; AB = bond; 1 of R1-R6 = CON: C(NH2)2, the other of R1-R6 = H, F, Cl, Br, iodo, alkyl, s2 of R1-R6 = cyano, NO2, N3, alkoxy, CF3, etc.; R7 = H, alkyl, alkenyl, etc.], were prepared. Thus, 3-chloro-5-fluoro-1-methylindolyl-2-carboxylic acid guanidine hydrochloride (synthetic outline given) inhibited rabbit erythrocyte Na⁺/H⁺-exchanger with IC50 = 3 × 10⁻⁸ M.

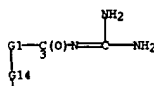
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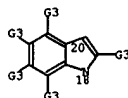
GI = 8-1 9-11 10-3

L5 ANSWER 3 OF 4 MARPAT COPYRIGHT 2005 ACS on STN (Continued)

MSTR 1



G1 = 18-1 20-3



G14 = furyl (5O)
 DER: or pharmaceutically acceptable acid addition salts
 MPL: claim 1
 NTE: also incorporates claim 14
 NTE: substitution is restricted

L5 ANSWER 4 OF 4 MARPAT COPYRIGHT 2005 ACS on STN (Continued)



G2 = 12



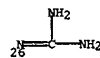
G3 = 14



G4 = (1) 25



G7 = 26



G17 = pyridyl
 DER: and pharmaceutically acceptable salts
 MPL: claim 1
 NTE: substitution is restricted
 NTE: also incorporates claim 6

10/749,630

=> d his

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FILE 'REGISTRY' ENTERED AT 14:14:20 ON 16 JUN 2005

L1 STRUCTURE UPLOADED

L2 6 S L1 SAM

L3 72 S L1 FULL

FILE 'CA' ENTERED AT 14:15:04 ON 16 JUN 2005

L4 2 S L3

FILE 'MARPAT' ENTERED AT 14:15:16 ON 16 JUN 2005

L5 4 S L1 FULL

=>

---Logging off of STN---

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Executing the logoff script...

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